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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/059,077 04/09/98 JOHNSTON

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LM01/0927

EXAMINER

ART UNIT	PAPER NUMBER
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NGUYEN, I

2712

DATE MAILED:

09/27/99

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/059,077

Applicant(s)
Johnston et al.

Examiner
Luong Nguyen

Group Art Unit
2712



☒ Responsive to communication(s) filed on Jul 2, 1999

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-25 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-25 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 07/02/99 have been fully considered but they are not persuasive.

In re pages 2-3, applicants argue that "none of the references cited by the examiner disclose an integrated display-control box."

In response, regarding claim 1, the examiner considers that claim 1 as claimed still do not distinguish over Schnee in view of Schilling et al. and Lucas et al.. According to *In re Larson*, 144 USPQ 347 (CCPA 1965), integrating the claimed display-control box is not patentable. Making the display-control box integral does not produce an different result. Doing so is a matter of engineering choice. Schene discloses a camera, which is allowed to rotate about its axis and can be mounted in a location on a vehicle (or marine vessel) that will not interfere with a users view (figure 1; column 2, lines 50-65). Schilling discloses a rotatable mounted display device that is applicable for an electronic apparatus or navigation and television systems (column 2, lines 58-62). Lucas discloses a rotatable/ adjustable pan and tilt camera mounted on a vehicle and can be easily controlled by the driver (or user). This device includes a display/ control apparatus that is mounted and secured in the vehicle. Furthermore, Lucas also discloses a camera that is mounted on the windshield of a vehicle (column 4, lines 17-20).

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In re page 4, applicants argue that the the examiner's argument, "it would have been obvious to have an adjustable control/display area for easy access for the navigator or operator" appears to be based on the applicant's disclosure.

In response, the examiner asserts that the examiner's argument "it would have been obvious to have an adjustable control/display area for easy access for the navigator or operator" is not based on the applicant's disclosure. The applicant can find the motivation in Lucas (column 2, lines 5-15), he teaches that his invention can be placed and adjusted in the passenger compartment of the vehicle, easily carried, etc. This inherently means that his invention can be easily accessed. Schilling discloses a rotatable mounted display device that is applicable for an electronic apparatus or navigation and television systems (column 2, lines 58-62). A camera is apart of a television system. Schnee discloses a camera (column 2, lines 55-65) mounted to a vehicle that can rotate 360 degrees (which means it fully rotates). The camera mounted to a motor housing which contains a motor for panning and a motor for tilting (col. 2 3, lines 66-3). Figure 2 shows the pan motor on the tilt motor in the housing.

In re page 5, the applicants argue that none of the cited references disclose applicants' "water seal attached to said tilting mechanism".

In response, regarding claim 5, the examiner considers that claim 5 as claimed still do not distinguish over Schee patent. Schnee discloses a water seal attached to the tilting mechanism via the motor housing. The tilting motor is disposed within the housing which makes it a part of the

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housing. Therefore, a water seal is attached to the tilting motor (column 2, lines 66-67, column 3, lines 1-4).

In re pages 5-6, applicants argue that none of the cited references disclose applicants' "viewing angle adjustment lever".

In response, regarding claim 19, the examiner considers that claim 19 as claimed still do not distinguish over Schnee. Schnee discloses a control area with switches and a joystick that controls the movement (panning and tilting) of the camera (column 3, lines 60-64). The joystick is the adjustment lever. When a user pan and/or tilt the camera with the joystick, he is able to view images at different angles.

In re page 6, applicants argue that none of the cited references disclose applicants' "a mount assembly adaptable to a railroad locomotive attachment".

In response, regarding claim 23, the examiner considers that claim 23 as claimed still do not distinguish over Schnee in view of Schilling et al. and Lucas et al. further in view of Yang. Yang discloses a camera for a train car in figure 17.

In re page 7, applicants argue that none of the cited references disclose applicants' "double locking mechanism".

In response, regarding claim 4, the examiner considers that claim 4 as claimed still do not distinguish over Schnee in view of Schilling et al. and Lucas et al. further in view of Paddock et al.. Paddock discloses two mechanisms, which includes a ball-plunger 80 and a quick release mechanism 70 for locking (see abstract, column 7, lines 27-45, column 8, lines 33-36).

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In re page 8, applicants argue that none of the cited references disclose applicants' "ball-plunger for self-locking".

In response, regarding claim 8, the examiner considers that claim 8 as claimed still do not distinguish over Schnee in view of Schilling et al. and Lucas et al. further in view of Paddock et al.. Paddock discloses ball-plunger 80 which provide a stop has a "self-locking" function (figure 6, column 7, lines 27-45).

In re page 9, applicants argue that none of the cited references Schnee, Schilling et al., Lucas et al. and Paddock et al. disclose applicants' claim 9 limitations.

In response, regarding claim 9, the examiner considers that claim 9 as claimed still do not distinguish over Schnee in view of Schilling et al. and Lucas et al. further in view of Paddock et al.. Paddock discloses two mechanisms, which includes a ball-plunger 80 and a quick release mechanism 70 for locking (see abstract, column 7, lines 27-45, column 8, lines 33-36).

In re page 10, applicants argue that none of the cited references disclose a "mount assembly adapted to engage a roof-rack of a vehicle".

In response, regarding claim 6, the examiner considers that claim 6 as claimed still do not distinguish over Schnee in view of Schilling et al. and Lucas et al. further in view of Klapper et al.. Klapper et al. disclose a pan and tilt camera mounted on any roof rack brand (figures 2, 15, column 3, lines 65-67, column 4, lines 1-4, column 13, lines 41-52).

In re page 11, applicants argue that none of the cited references disclose "singular support for both pan and tilt mechanism" and "slip clutches".

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In response, regarding claim 10, the examiner considers that claim 10 as claimed still do not distinguish over Schnee in view of Schilling et al. and Lucas et al. further in view of Kormos et al.. Kormos et al. disclose a pointing mechanism that has a singular support and separate mechanisms for operating pan and tilt (see abstract, figures 1 and 4, elements 562, 564). Kormos et al. disclose slip clutches as slip ring and brush assembly 536 (figures 1 and 3, column 3, lines 40-52).

In re page 12, applicants argue that Kormos et al. does not disclose a slip clutch.

In response, regarding claim 11, the examiner considers that claim 11 as claimed still do not distinguish over Schnee in view of Schilling et al. and Lucas et al. further in view Kormos et al. and Kurtain. Kormos et al. disclose slip clutch as slip ring and brush assembly 536 (figures 1 and 3, column 3, lines 40-52).

In re page 13, applicants argue that Kenedy et al. does not dsiclose the claim 12 limitation.

In response, regarding claim 12, the examiner considers that claim 12 as claimed still do not distinguish over Schnee in view of Schilling et al. and Lucas et al. further in view of Sergeant et al. and Kenedy et al. Please, see Office Action for the rejection of the claim.

In re page 14, applicants argue that none of the cited references disclose the limitation of claim 16.

In response, regarding claim 16, the examiner considers that claim 16 as claimed still do not distinguish over Schnee in view of Schilling et al. and Lucas et al. further in view of Sergeant et al. and Kenedy et al. Please, see Office Action for the rejection of the claim.

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In re page 15, applicants argue that none of the prior art cited by the examiner disclose the limitation of claim 13.

In response, regarding claim 13, the examiner considers that claim 13 as claimed still do not distinguish over Schnee in view of Schilling et al. and Lucas et al. further in view of McMahon. McMahon discloses Field of View (FOV) stabilized camera as a gyro-stabilized camera system (column 1, lines 40-57).

In re page 16, applicants argue that none of the prior art cited by the examiner disclose the limitation of claim 15.

In response, regarding claim 15, the examiner considers that claim 15 as claimed still do not distinguish over Schnee in view of Schilling et al. and Lucas et al. further in view of Baumeister. Baumeister discloses a camera includes a heat sink for temperature control (figure 2, column 3, lines 56-57).

In re pages 17-18, applicants argue that none of the prior art cited by the examiner disclose the limitation of claim 17.

In response, regarding claim 17, the examiner considers that claim 17 as claimed still do not distinguish over Schnee in view of Schilling et al. and Lucas et al. further in view of Balkwill et al.. Balkwill et al. disclose an electric box that prevents moisture from entering the box (column 1, lines 35-40).

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Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 5, 14, 18, 19, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schnee in view of Schilling et al. further in view of Lucas et al.

As for claims these claims, Schnee discloses a camera, which is allowed to rotate about its axis and can be mounted in a location on a vehicle (or marine vessel) that will not interfere with a users view (figure 1; column 2, lines 50-65). This means that it can be mounted at any angle with respect to gravity. In column 3, lines 60-64, he also discloses a control area with switches and a joystick that controls the movement (panning and tilting) of the camera. It is inherent that the switches and control buttons are the same kind of controls because some switches can be pressed on or off. It is also inherent for the control buttons and the joystick can be operated with one hand because these type of controls do not require a second hand to operate. The movement is operated by two motors (one for tilting and one for panning) in a water sealed housing (columns 2 & 3, lines 66-67 and 1-4). Columns 2 and 3, lines 66-67 and 1-3 demonstrate mounting the camera to the tilting motor which is mounted to the panning motor (also see figure 2). Except ~~for~~ that Schnee does not disclose a control area attached to an adjustable mount and an image capture box. Schilling discloses a rotatable mounted display device that is applicable for an electronic

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apparatus or navigation and television systems (column 2, lines 58-62). It would have been obvious to have an adjustable control/display area for easy access for the navigator or operator. Also, the crew or passenger(s) positioned at a different angle can rotate it in order to operate the controls or to view the display. Now, Lucas discloses a rotatable/ adjustable pan and tilt camera mounted on a vehicle and can be easily controlled by the driver (or user). This device includes a display/ control apparatus that is mounted and secured in the vehicle. Furthermore, Lucas also discloses a camera that is mounted on the windshield of a vehicle (column 4, lines 17-20). Referring to figure 4, one can see that the camera can be mounted at any angle. Lastly, Lucas' invention can record the captured image(s). Please refer to the abstract and figures 1 & 4. Recording the captured scene is advantageous for future reference, especially when the operator is navigating. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a display/control box and an image capture box mounted at any angle with respect to gravity.

4. Claims 3, 4, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schnee in view of Schilling et al and Lucas et al. as applied to claim 1 above, and further in view of Paddock et al.

For these claims, Schnee and Schilling do not disclose a mount assembly with a quick disconnect or any kind of locking mechanism. Lucas discloses a pan and tilt camera with display control that has some manner of locking (column 4, lines 17-24), but does not include a first or secondary self-locking mechanism. Paddock discloses two mechanisms, which includes a ball-

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plunger and a quick release mechanism for locking, in column 7, lines 27-30 and in the abstract. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include an automatic locking system for the advantage of the person operating the vehicle. The user would not have to waste time adjusting the pan and tilt of the camera.

5. Claims 6, 7, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schnee in view of Schilling et al and Lucas et al. as applied to claim 2 above, and further in view of Klapper et al.

As for claims 6-7 and 21-22, Schnee discloses a pan and tilt camera on a vehicle. However, he does not disclose a camera mounted on the roof rack of the vehicle. Klapper teaches us about a pan and tilt camera mounted on any roof rack brand (figure 2) and/or light bar of a vehicle. In addition, Klapper discloses a camera attachment for a ship in figure 15. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to mount the camera on the roof rack of the vehicle because the user can capture images at better angles outside the vehicle.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schnee in view of Schilling et al and Lucas et al. as applied to claim 2 above, and further in view of Kormos et al.

As for claim 10, Schnee discloses a camera with a singular housing for pan and tilt. However, he does not describe the system in detail. Schilling and Lucas do not disclose this limitation at all. In figure 1 and the abstract, Kormos discloses a pointing mechanism that has a

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singular support and separate mechanisms for operating pan and tilt. Please also refer to figure 4, and elements 562 and 564. Kormos et al. disclose slip clutches as slip ring and brush assembly 536 (figures 1 and 3, column 3, lines 40-52). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include this type of control system for easy access and adjusting of the camera while the operating the vehicle.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schnee in view of Schilling et al and Lucas et al. as applied to claim 1 above, and further in view of Kormos et al as applied to claim 10 above, and further in view of Kurian.

For this claim, Schnee, Schilling, and Lucas do not disclose a pan and tilt camera system with a slip clutch. Kormos discloses a slip clutch as applied to claim 10. However, Kormos does not disclose the added features stated in claim 11. Although Kurian's patent does not explicitly disclose applications for cameras, Kurian discloses information about an adjustable clutch device that appears to be very similar to the features of the slip clutch. Please refer to the abstract and figure 2. He also mentions a clutch having a free rotation control, a friction disc, a wave (or spring) washer, etc. in figures 2 and 5. In figures 1 and 2, Kurian shows a friction pad between the gear and support housing. It is advantageous to add a clutch with all of the features in the limitations because it allows better pan and tilt maneuvering when the user or operator of the car captures images with the camera. The addition of a rotational free gear also allows the operator to rotate the input end of the clutch and line up the spline with thereof and the spline with the power

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shaft (column 1, lines 29-31). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a slip clutch with the added features.

8. Claim 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schnee in view of Schilling et al. and Lucas et al. as applied to claim 12 above, and further in view of Sergeant et al. and further in view of Kennedy et al.

For claim 12, Schnee, Schilling, and Lucas do not disclose information about a camera housing that has an opening to accept optical filters nor an o-ring seal. Sergeant discloses a camera housing with an o-ring seal for blocking moisture in the abstract. Then, Kennedy discloses information about a camera housing that has an opening to accept optical filters in column 5, lines 23-26. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include these added features on the camera. The o-ring seal blocks moisture from environmental conditions and the optical filter provides modified focusing for the lens.

As for claim 16, Schnee, Schilling, and Lucas do not mention a camera housing acting as an additional heat sink. Sergeant also does not explicitly mention a heat sink. Instead, he uses an o-ring seal to protect the camera housing from the environment. However, Kennedy discloses this necessity in column 5, lines 13-15. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to construct a camera enclosure that acts as an additional heat sink because it adds extra protection for the camera power supply in extreme climate conditions or in the environment.

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9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schnee in view of Schilling et al and Lucas et al. as applied to claim 1 above, and further in view of McMahon.

In this claim, Schnee, Schilling, and Lucas do not explicitly disclose a camera in a vehicle that has a stabilized field of view (FOV). However, McMahon discloses this information in column 1, lines 40, and 51-57. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to construct a device that has a FOV stabilized camera because the camera will provide better pictures of moving images when it pans and tilts.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schnee in view of Schilling et al and Lucas et al. as applied to claim 2 above, and further in view of Baumeister.

As for this claim, Schnee, Schilling, and Lucas do not explicitly disclose a device with a heat sink. However, in figure 2 and column 3, lines 56-57, Baumeister discloses a camera that includes a heat sink for temperature control. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a heat sink in the camera because it will keep the camera from overheating.

11. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schnee in view of Schilling et al. and Lucas et al. as applied to claim 1 above, and further in view of Balkwill et al.

In this claim, Schnee, Schilling, and Lucas do not explicitly mention a one way moisture passage plug, but he does have a cable that appears to be flexible in figure 1, element 28.

Although Balkwill disclose information relating to a camera, he reveals an electrical box that prevents moisture from entering the box. It has a plug/ opening that receives a wire which is

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sealed and resists moisture passage. Balkwill's invention can be applied to any camera enclosure. Please refer to column 1, lines 35-40. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a plug with these features. It would add more protection for the camera power supply in different climate conditions.

12. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schnee in view of Schilling et al. and Lucas et al. as applied to claim 1 above, and further in view of Tovi.

As for this claim, Schnee, Schilling, and Lucas do not disclose a tinted sphere enclosing the camera. On the other hand, Tovi discloses a silver, transparent, and spherical camera enclosure for surveillance purposes. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to place the camera in an enclosure. Since this is a surveillance device, one would want to conceal the camera from the images being surveyed.

13. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schnee in view of Schilling et al. and Lucas et al. further in view of Yang.

Schnee et al., Schilling et al., and Lucas et al. do not disclose a camera on a rail road locomotive. However, Lucas et al. disclose a camera for a surveillance vehicle (see abstract). Yang discloses a camera for a train car in figure 17. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the camera adaptable to a train car because this train car is a different type of surveillance vehicle.

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14. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schnee in view of Schilling et al. and Lucas et al. as applied to claim 1 above, and further in view of Conway et al.

Schnee, Schilling, and Lucas does not reveal that the images can be view on the Internet in the vehicle. On the other hand, Conway discloses different communication links to display captured images from a camera. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a feature transmitting captured images on the Internet. It allow a surveyor at remote location way to view the images while they are being captured by the camera on the surveillance car.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Luong Nguyen** whose telephone number is **(703) 308-9297**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wendy Garber**, can be reach on **(703) 305-4929**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communication intended for entry)

or:

(703) 308-5359, (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive,
Arlington, VA., Sixth Floor (Receptionist).

LN LN
9/25/99


TUAN HO
PRIMARY EXAMINER